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Contribution to the knowledge of the genus *Cneorella* MEDVEDEV & DANG, 1981, with descriptions of five species new to science (Coleoptera: Chrysomelidae: Galerucinae)

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ABSTRACT. A contribution to the knowledge of the genus *Cneorella* MEDVEDEV & DANG, 1981, is presented. The primary types of most of the species were examined. *Cneorella medvedevi*, *C. kimotoi* (both from Vietnam), *C. kantneri*, *C. zdenka* and *C. phuphanensis* (all from Laos) n. spp. are described and compared with all related species. *Cneorella flavipes* MEDVEDEV, 2000, and *C. bicoloripennis* LOPATIN, 2003, are included to *Cneorella* with some doubts and their generic status is discussed. Male genitalia of all the species studied are figured.

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Galerucinae, *Cneorella*, Oriental Region

The genus *Cneorella* was proposed by MEDVEDEV & DANG (1981) for three new species described from Vietnam, with *C. chapaensis* MEDVEDEV & DANG, 1981 as the type species. GRESSIT & KIMOTO (1963) described two species, *Calomicrus suisapanus* and *Calomicrus spurius*, but they indicated some doubts about the generic position of these two species. *Dercetis eurycollis* described by CHŪJŌ (1965) was synonymized with *Calomicrus spurius* by KIMOTO (1969). Later, KIMOTO (1989) transferred both *Calomicrus*-species to the genus *Cneorella* and described *Cneorella laosensis* from Laos. Recently, two additional species were described by MEDVEDEV (2000) and LOPATIN (2003): *C. flavipes* from Laos and *C. bicoloripennis* from North Vietnam.

The following abbreviations are used in the text:

AWCW – Andrzej WARCHAŁOWSKI collection, Wrocław, Poland;
 BPBM – Bernice P. Bishop Museum, Honolulu, USA (A. SAMUELSON);
 FKCC - František KANTNER collection, České Budějovice, Czech Republic;
 JBCB – Jan BEZDĚK collection, Brno, Czech Republic;
 JVCJ – Jiří VOŘÍŠEK collection, Jirkov, Czech Republic;
 HNHM – Hungarian Natural History Museum, Budapest, Hungary (O. MERKL);
 HTHJ - Haruo TAKIZAWA collection, Hasuda, Japan;
 KUEC – Kyushu University, Fukuoka, Japan (J. YUKAWA);
 LMRM – Lev N. MEDVEDEV collection, Moscow, Russia;
 NHMB - Naturhistorisches Museum, Basel, Switzerland (Eva SPRECHER-
 UEBERSAX, Michel BRANCUCCI);
 NMPC – National Museum, Praha, Czech Republic (J. HÁJEK);
 PKCJ – Petr KRESL collection, Janovice nad Úhlavou, Czech Republic;
 SNMC – Slovak National Museum, Bratislava, Slovak Republic (V. JANSKÝ);
 ZSMC - Zoologische Staatssammlung, München, Germany (A. VESMANIS).

When recording the label data of the type material examined, a double slash (//) divides data on different labels. The exact label data are cited for type specimens. The type localities are cited in the original spelling. Other remarks and complementations of the author are given in square brackets: [p] – preceding data are printed; [h] – the same, but handwritten; [w] - white label; x/y - number of males/number of females.

***Cneorella* MEDVEDEV & DANG, 1981**

Cneorella MEDVEDEV & DANG, 1981: 629 (type species: *Cneorella chapaensis* MEDVEDEV & DANG, 1981, by original designation); KIMOTO, 1989: 93.

MEDVEDEV & DANG (1981) distinguished the genus *Cneorella* from other related genera by the following combination of characters: oblong oval, convex, dorsum glabrous; frontal tubercles transverse, anterior angles triangularly prolonged; frontal furrow narrow, feebly impressed; anterior part of head transversely triangular, convex, with depression for the reception of the antennomere 1 below lower margin of eyes; labrum with 6 setae in transverse row; antennae reach behind the middle of elytra, antennomere 2 short; the third segment of maxillar palpal short, nearly square, segment 4 shortly triangular; pronotum even, all margins bordered; elytra densely covered with confused punctures, with transverse depression behind humeral calli and hairs on elytral margin; epileura broad, gradually narrowed to apex; anterior coxal cavity opened posteriorly, prosternal process very narrow but distinct; mesocoxae approximated, but mesosternum connects the metasternum in one point; last visible sternite in male trilobed; aedeagus with characteristic incision on apex; tibiae unspined; claws appendiculate.

***Cneorella bicoloripennis* LOPATIN, 2003**

Cneorella bicoloripennis LOPATIN, 2003: Euroasian Ent. J., 2: 304 (Type locality: Vietnam: Sa-Pa).

TYPE MATERIAL EXAMINED

The type material was not examined.

ADDITIONAL MATERIAL EXAMINED

No additional material was examined.

Aedeagus as in Fig. 3 (redrawn from LOPATIN 2003).

DISTRIBUTION

Known only from the type locality – Fan Si Pan Mts. (Sa-Pa, Vietnam).

COMMENTS

The original description of *C. bicoloripennis* only partly fits the generic characters of the genus *Cneorella*. Mainly the unusual body colour (head, pronotum, and basal part of elytra black, apical part of elytra orange-yellow, ventral part of body yellow) and the structure of the aedeagus (Fig. 3) allow me to cast doubt on the generic position in the genus *Cneorella*. However, without the examination of the type series, the exact generic identification is impossible.

***Cneorella chapaensis* MEDVEDEV & DANG, 1981**

Cneorella chapaensis MEDVEDEV & DANG, 1981: Entomol. Obozr. 50: 630 (Type locality: Vietnam, prov. Khoanglenshon, Shapa).

See also *Cneorella kimotoi* n. sp.

TYPE MATERIAL EXAMINED

Holotype (male), labelled: “ ВЬЕТНАМ горы у ША-ПА 1600м[p] 4.VI. [h] 196 [p] 3 г. Кабаков [Vietnam, mountains near Sha-pa, 1600 m, 4.vi.1963, Kabakov leg.] [w, p] // Holotypus [p] *Cneorella chapaensis* L. Medv. et D-Dap [red label, h]” (in LMRM).

ADDITIONAL MATERIAL EXAMINED

No additional material examined.

Aedeagus as in Fig. 1.

DISTRIBUTION

Known only from the type locality – Sa-Pa, North Vietnam. Other Vietnamese localities published by KIMOTO (1989) refer to *Cneorella kimotoi* n. sp.

COMMENTS

Cneorella chapaensis is similar to *C. cynea* and *C. zdenka* n. sp. Both species differ from *C. chapaensis* in the structure of aedeagus (Figs 1-2, 23) and in the shape of elytral apex, rounded in *C. cynea* (Fig. 8) and *C. zdenka* n. sp. and nearly rectangular in *C. chapaensis* (Fig. 7). Also *C. medvedevi* n. sp. has similar structure of aedeagus (with deep furrow ventrally), but the body is more slender and less convex and the apical angle of elytra is rounded.

***Cneorella cynea* MEDVEDEV et DANG, 1981**

Cneorella cynea MEDVEDEV et DANG, 1981: Entomol. Obozr. 50: 631 (Type locality: Vietnam, prov. Tkhankhoa).

See also *Cneorella zdenka* n. sp.

TYPE MATERIAL EXAMINED

Holotype (male), labelled: “ВЬЕТНАМ Тхан-Хоа 9.I.1962 [Vietnam, Tkhankhoa, 9.i.1962] [w, h] // Holotypus [p] *Cneorella cynea* L. Medv. et D-Dap [red label, h]” (in LMRM).

ADDITIONAL MATERIAL EXAMINED

VIETNAM: Lao-Kay, Sa-Pa, 17.iv.1962, A. Warchalowski leg. (1/1 in AWCW, 0/1 in JBCB); Vinh-Phu prov., Tamdao, 7.-8.vi.1981 (0/2 in ZSMC); Tam Dao, 5.-10.vi.1989, Brantlová leg. (1/1 in NHMB); Tam Dao, 12.-24.v.1989, P. Pacholátka leg. (1/0 in NHMB); Tam Dao, 27.v.-2.vi.1986, J. Horák leg. (0/1 in NHMB); Tam Dao, viii.1999, R. Boëa leg. (1/0 in SNMC); Song-Chay, 1908 (1/3 in NHMB).

Aedeagus as in Fig. 2. Spermatheca as in Fig. 16.

DISTRIBUTION

Vietnam.

COMMENTS

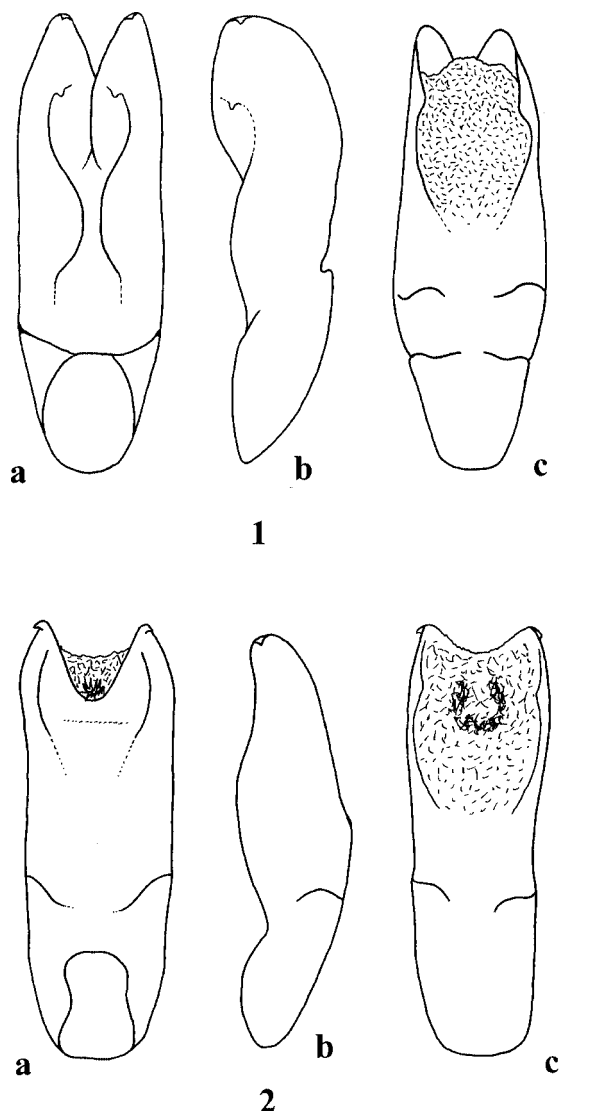
Cneorella cynea is externally very similar to *C. zdenka* n. sp. Both species differ in the structure of aedeagus (Figs 2, 23) and in the shape of the groove on the median lobe of the male last sternite (deep in *C. cynea*, indistinct in *C. zdenka* n. sp.). Also *C. medvedevi* n. sp. is similar in the blue colour of the dorsum, but the body is more slender and less convex and the structure of aedeagus is completely different (Fig. 14).

***Cneorella flavipes* MEDVEDEV, 2000**

Cneorella flavipes MEDVEDEV, 2000: Ann. Hist.-nat. Mus. Nat. Hung., 92: 166 (Type locality: Laos, Champassak prov., Dong Hua Xao NBCA, 2 km S of Nong Luang village).

TYPE MATERIAL EXAMINED

Holotype (male) and 2 paratypes (male and female), labelled: "LAOS, Champassak Prov., Dong Hua Xao NBCA, 2 km S of Ban Nong Luang, bank of Touay-Guai stream, [w, p] // 15°4'N, 106°13'E, 800 m, swept, No. 23., 1-5.IV.1998, leg.O.Merkl & G.Csorba [w, p] // HOLOTYPUS [PARATYPUS, resp.] [p] *Cneorella fulvipes* m. [sic!, h] L. Medvedev det. 19 [p] 99 [red label, h]" (HT and male PT in HHNM, female PT in LMRM).



1-2. Aedeagus (a - ventral view, b - lateral view, c - dorsal view): 1 - *Cneorella chapaensis* (Holotype), 2 - *C. cyanea*. Scale 1 mm

ADDITIONAL MATERIAL EXAMINED

No additional material was examined.

Aedeagus as in Fig. 4.

DISTRIBUTION

Laos.

COMMENTS

Although MEDVEDEV (2000) had indicated that the type series consisted of one male (holotype) and two females (paratypes), both specimens deposited in HNHM proved to be males.

I have some doubts about the generic position of *C. flavipes*, because the type specimens show several important characters very unusual for the genus *Cneorella*: simple apex of aedeagus (bifurcated in typical *Cneorella*), legs largely fulvous (completely metallic black in *Cneorella*) and pronotum 1.75-1.90 times as broad as long (2.00-2.25 times as broad as long in *Cneorella*). Such combination of characters is typical for the genus *Calomicrus* STEPHENS, 1834, but its members have distinct spur on mid and hind tibiae (missing in *C. flavipes*). It is necessary to note that generic position of *Calomicrus* species and their allies from South-East Asia is rather unclear and probably they will be divided into several different genera in the future. Due to this fact I avoid transferring *C. flavipes* to the genus *Calomicrus*.

***Cneorella laosensis* KIMOTO, 1989**

Cneorella laosensis KIMOTO, 1989: Esakia, 27: 94 (Type locality: Laos: Ban Van Eue, 20 km E. of Phou-kow-kuei).

TYPE MATERIAL EXAMINED

5 paratypes (3 males, 2 females), labelled: "LAOS: Ban Van Heue 20 km E of Phou-kow-kuei, 15-31.IV.1965 [w, p] // Native Collector BISHOP MUS. [w, p] // PARATOPOTYPE [blue label, p] // *Cneorella laosensis* n. sp. [w, p]" (in BPBM).

ADDITIONAL MATERIAL EXAMINED

No additional material was examined.

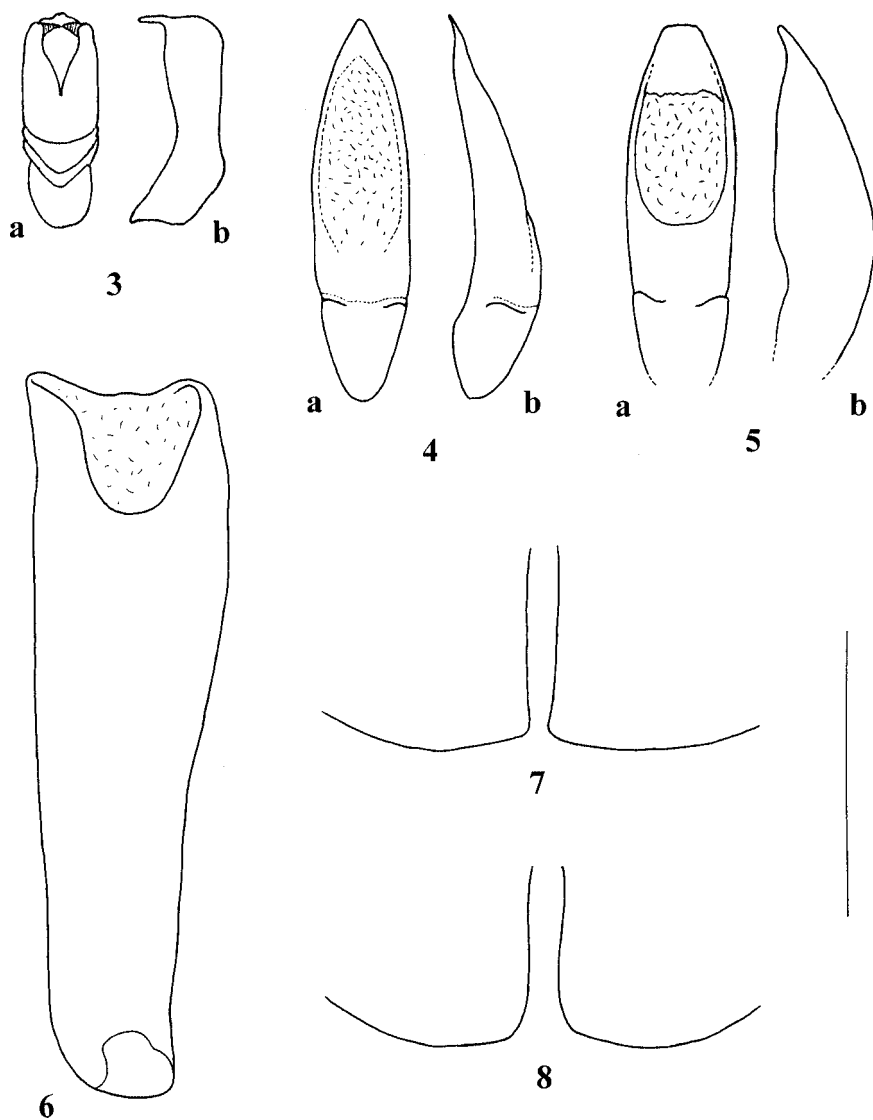
Aedeagus. Because all male paratypes available to me are weakly sclerotized and aedeagi are in bad condition, only ventral view of aedeagus is pictured (Fig. 6). Spermatheca as in Fig. 17.

DISTRIBUTION

Laos.

COMMENTS

Cneorella laosensis was described based on 15 specimens (KIMOTO 1989) deposited now in BPBM. I had the possibility to study 5 weakly sclerotized paratypes (3 males and 2 females).



3-8. 3-5. Aedeagus (a - dorsal view, b - lateral view): 3 - *Cneorella bicoloripennis* (Lopatin orig.), 4 - *C. flavipes*, 5 - *C. spuria*; 6 - aedeagus of *C. laosensis* in ventral view (Paratype); 7-8. Elytral apex: 7 - *C. chapaensis*, 8 - *C. cyanea*. Scales: 1 mm for Figs 3-6; 2 mm for Figs 7-8

With the body length 7.00-8.40 mm, *C. laosensis* is one of the largest species within the genus *Cneorella* (together with *C. vietnamica* – holotype 7.80 mm and *C. kantneri* n. sp. – 7.35-8.00 mm). *C. kantneri* n. sp. is very similar to *C. laosensis* but differs in the structure of aedeagus (Figs 6, 10). *C. vietnamica* and *C. laosensis* have extremely long aedeagi, nearly twice as long as aedeagi of other *Cneorella* species. In ventral view, aedeagus of *C. laosensis* is more deeply incised than aedeagus of *C. vietnamica*. Moreover, *C. vietnamica* could be distinguished also by the small triangular process on the groove of the median lobe of the last sternite in the male (Fig. 12), missing in *C. laosensis*, and by the black apical half of antennae (paler apical half of antennae in *C. laosensis*).

Cneorella spuria (GRESSITT et KIMOTO, 1963)

Calomicrus spurius GRESSITT et KIMOTO, 1963: Pac. Ins. Monogr. 1B: 568 (key), 575 (Type locality: Hainan I., Ta-hian, foot of Five Fingers Mts.); WILCOX, 1973: 520; KIMOTO & CHU, 1996: 77; KIMOTO & TAKIZAWA, 1997: 187 (in Japanese), 305 (key), 382 (in English).

Cneorella spuria: KIMOTO, 1989: 94 (key).

Dercetis eurycollis CHŪJŌ, 1965: Spec. Bull. Lep. Soc. Japan, 1: 93 (Type locality: C. Formosa, Tattaka); KIMOTO, 1969: 45 (= *Calomicrus spurius*); CHŪJŌ & CHŪJŌ, 1997: 47 (HT in KUEC).

TYPE MATERIAL EXAMINED

Dercetis eurycollis

Holotype (female), labelled: “Tattaka FORMOSA 24.VI.1961 Coll. T. SHIROZU [w, h] // Holotype [red label, h] // *Dercetis eurycollis* Chūjō [h] Det. M. CHUJO, 196 [p] 2 [w, h]“ (in KUEC).

ADDITIONAL MATERIAL EXAMINED

TAIWAN: Palin, Taoyuan, 2.-4.vii.1983, H. Takizawa leg. (0/1 in HTHJ); Liukei, Kaohsiung, 29.iv.-8.v.1982, H. Takizawa leg. (1/0 in HTHJ); Liukei, Kaohsiung, 26.vii.1985, H. Takizawa leg. (0/1 in HTHJ); Taipei, Yangmingshan, 1.-2.vii.1977, H. Takizawa leg. (0/1 in HTHJ); Taipei, Yangmingshan, 14.vii.1981, H. Takizawa leg. (1/0 in HTHJ); Nantou, 2.viii.1985, H. Takizawa leg. (1/0 in HTHJ).

Aedeagus of non-type material as in Fig. 5.

DISTRIBUTION

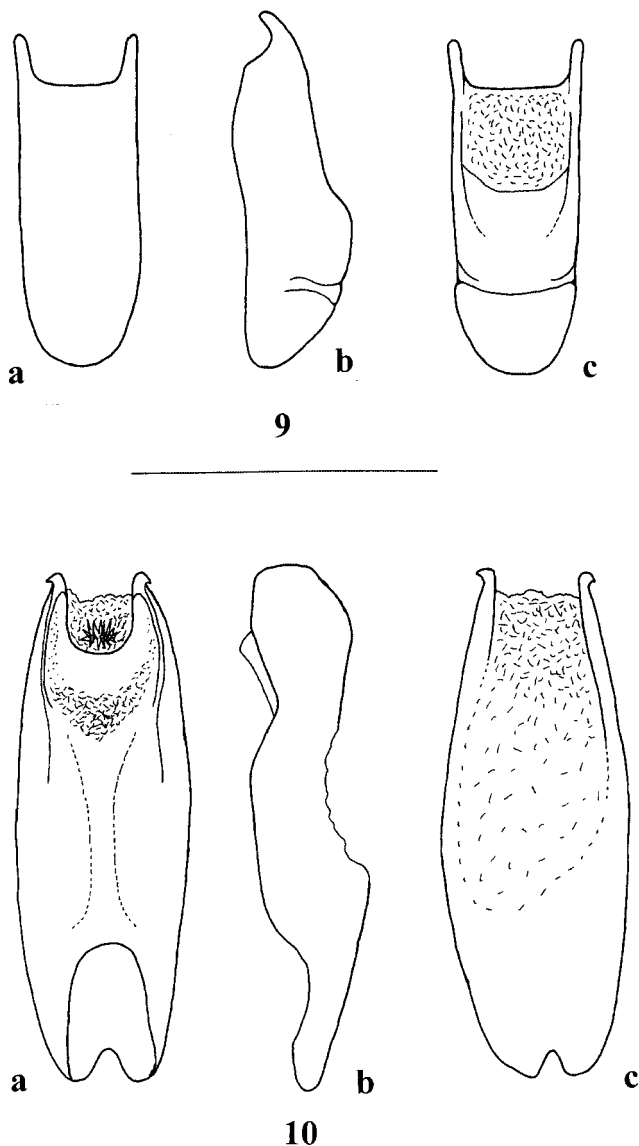
Hainan Isl., Taiwan Isl., S. China (Kwangtung, Fukien, Kiangsi) (?).

COMMENTS

According to the original description, the holotype and some of the six paratypes of *Calomicrus spurius* are deposited in California Academy of Sciences (CAS), the rest of the paratypes in BPBM and Lingnan University (Canton, China). All type material was collected in Hainan Island. Another six specimens from South China were not designated as paratypes, though they slightly differ

from the Hainan material. Unfortunately, the type material was not found in BPBM (SAMUELSON, pers. comm. 2003) and my loan request to CAS remained unanswered.

CHŪJŌ (1965) described *Dercetis eurycollis* from Taiwan based on one female. It was synonymized with *Calomicrus spurius* by KIMOTO (1969). I have examined the female holotype of *Dercetis eurycollis* which is fully conspecific



9-10. Aedeagus (a - ventral view, b - lateral view, c - dorsal view): 9 – *Cneorella suisapana* (Paratype), 10 – *C. kantneri* n. sp. Scale 1 mm

with non-type material of *Cneorella spuria* from Takizawa's collection. All Taiwanese specimens externally fit the *Cneorella* characters, but the aedeagus is more flattened and not bifurcated (Fig. 5). Except the unusual aedeagus, the Taiwanese specimens perfectly fit the generic characters of *Cneorella*. However, the comparison of Taiwanese material with type material of *Calomicrus spurius* from Hainan is necessary for the exact identification of the specimens from Taiwan.

***Cneorella suisapana* (Gressitt et Kimoto, 1963)**

Calomicrus suisapanus GRESSITT et KIMOTO, 1963: Pac. Ins. Monogr. 1B: 568 (key), 577 (Type locality: W. Hupeh Prov., Lichuan Distr., Sui-sa-pa); WILCOX, 1973: 520.
Cneorella suisapana: KIMOTO, 1989: 94 (key), 95 (Thailand).

TYPE MATERIAL EXAMINED

Paratype (male), labelled: "W. Hupeh, CHINA Leong-ho-kow Lichuan. IX [p] 9 [h] 48 [w, p] // Gressitt & Djou Collrs [w, p] // PARATYPE [p] m *Calomicrus suisapanus* [h] Gressitt & Kimoto [yellow label, p] // *Calomicrus suisapanus* m G+K [h] J.L.Gressitt [w, p]" (in BPBM); Paratype (female), labelled: "Suisapa, 1000 M. Lichuan Distr. W. Hupeh, China VII- [p] 30 [h] -48 [w, p] // Gressitt & Djou Collrs [w, p] // PARATYPE [p] *Calomicrus suisapanus* [h] Gressitt & Kimoto [yellow label, p]" (in BPBM).

ADDITIONAL MATERIAL EXAMINED

No additional material was examined.

Aedeagus as in Fig. 9.

DISTRIBUTION

China (Hupeh), Thailand.

COMMENTS

Described from eight specimens from the Lichuan district in the Chinese province Hupeh. I had the opportunity to study two paratypes from BPBM. *C. suisapana* differs from other *Cneorella* species in having only weakly depressed elytra behind basal 1/4, in having the interstices of elytral punctures shagreened and in the structure of aedeagus (Fig. 9).

***Cneorella vietnamica* MEDVEDEV et DANG, 1981**

Cneorella vietnamica MEDVEDEV et DANG, 1981: Entomol. Obozr. 50: 632 (Type locality: Vietnam, prov. Kuangnin, Din Lap); KIMOTO, 1989: 94 (key), 95.

TYPE MATERIAL EXAMINED

Holotype (male), labelled: "Dinh lập Qn. 17.IX1970 Cây rung [w, h] // Holotypus [p] *Cneorella vietnamica* L. Medv. et D-Dap [red label, h]" (in LMRM).

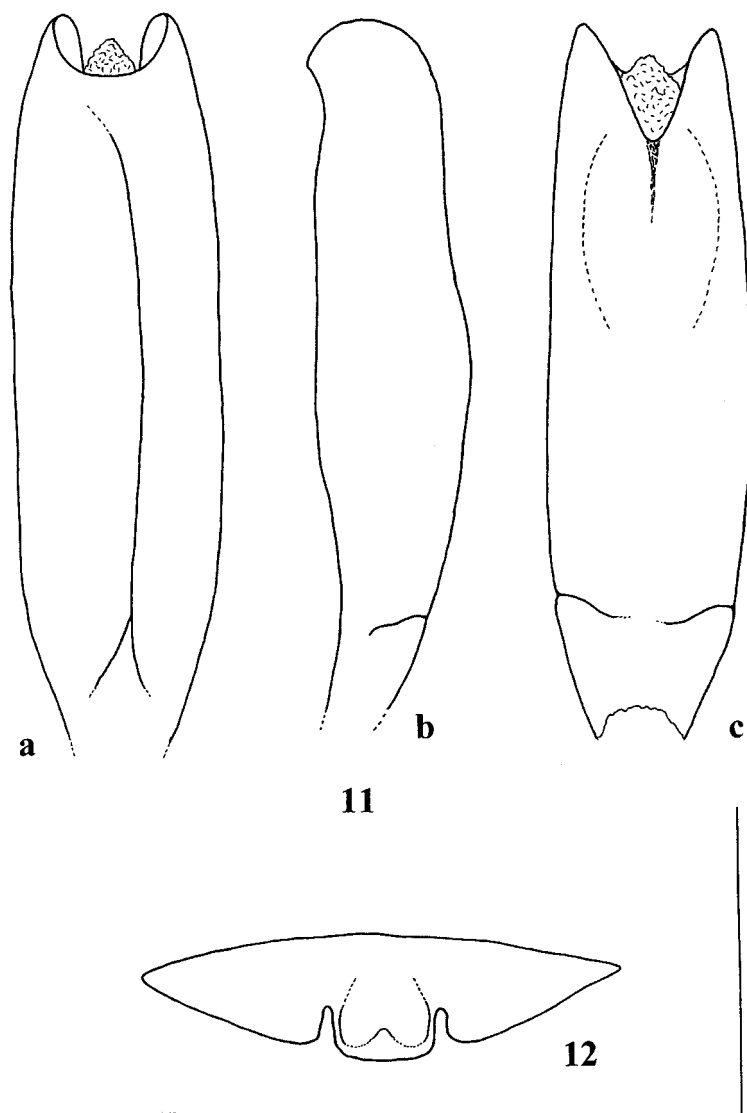
ADDITIONAL MATERIAL EXAMINED

No additional material was examined.

Aedeagus very long, with distinct keel ventrally (Fig. 11).

DISTRIBUTION

Vietnam.



11-12. *C. vietnamica* (Holotype): 11 – aedeagus (a - ventral view, b - lateral view, c - dorsal view), 12 – last sternite of male. Scales: 1 mm for Fig. 11; 2 mm for Fig. 12

COMMENTS

Known only from the male holotype. *C. vietnamica* can be easily distinguished from other *Cneorella* species by the very long aedeagus (nearly twice as long as aedeagi of other *Cneorella*). Only *C. laosensis* has similarly long aedeagus (see also the comments under *C. laosensis*) but *C. vietnamica* has a small triangular process on the median lobe of the last male sternite (Fig. 12).

DESCRIPTIONS OF NEW SPECIES

***Cneorella kantneri* n. sp.**

TYPE MATERIAL

Holotype (male), and 3 paratypes (1 male, 2 females), labelled: "Laos C., Bolikhamsai pr., Ban Nape env., alt. 400 m, 7.-16.v.2004, 18°20'N, 105°08'E, E. Jendek & O. Šauša leg. [w, p]" (HT and 1 PT in NMPC, 1 PT in JBCB, 1 PT in FKCC). The holotype of the newly described species is provided with one printed red label: "HOLOTYPUS [or PARATYPUS], *Cneorella kantneri* n. sp., det. J. Bezdek 2005".

DESCRIPTION

Oblong oval, moderately widened towards the rear, convex, lustrous, glabrous. The body surface metallic dark blue or dark violet, abdomen yellow. Last four antennomeres distinctly paler.

Labrum transverse, anterior margin rounded, lustrous, covered with 6 punctures in row, each bearing a long pale seta. Head lustrous, impunctate, glabrous. Interantennal space as wide as antennal insertion. Two depressions for the reception of the first antennomere are situated in front of antennal insertions. Frontal tubercles trapezoidal, slightly elevated above vertex, separated from each other and posteriorly by deep furrow. Outer lateral margins of frontal tubercles very indistinctly impressed. Frons with small distinct shallow groove just behind frontal tubercles. Antennae filiform, 0.75 times as long as body; length ratio of antennomeres 1 to 11: 22-10-15-23-21-23-23-22-23-20-25.

Pronotum transverse, 2.05 times as broad as long, widest in the first third, moderately convex, even, glabrous. Anterior margin widely concave, lateral margins rounded, posterior margin widely rounded towards the posterior corners and slightly sinuated in the middle. All margins distinctly bordered. Anterior angles distinctly bulged, posterior angles widely rounded, indicated. All angles with setigerous pores bearing long pale setae. Surface lustrous, covered with small punctures.

Scutellum subtriangular, with apex widely rounded, impunctate, lustrous, glabrous.

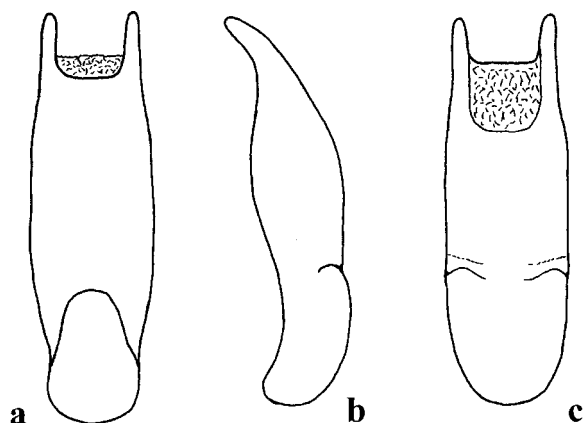
Elytra 1.35 times as broad as the base of pronotum, widened posteriad, widest in the second third, with transverse furrow behind well developed humeral calli.

Elytral surface densely covered with small punctures, finer at humeral calli. Epipleura distinct, gradually narrowed posteriad and disappeared before apex.

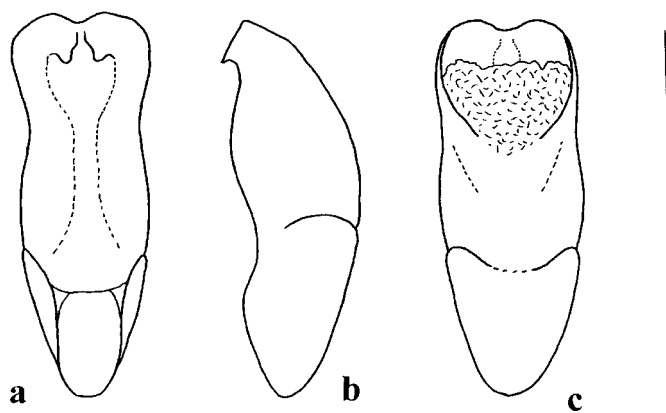
Macropterous.

Legs slender, densely covered with short pale hairs. Basimetatarsomere 1.15 times as long as the two following metatarsomeres combined. Claws appendiculate. Metasternum lustrous, covered with fine punctures and short pale hairs. Abdomen lustrous, sparsely covered with fine punctures and short pale hairs.

Sexual dimorphism: Male: The last visible sternite with two narrow incisions, median lobe with large groove. Female: The last visible sternite complete, without the groove.



13



14

13-14. Aedeagus (a - ventral view, b - lateral view, c - dorsal view): 13 - *Cneorella kimotoi* n. sp., 14 - *C. medvedevi* n. sp. Scale 1 mm

Body length 7.35-8.00 mm (holotype 7.75 mm).

The shape of aedeagus as in Fig. 10. Spermatheca as in Fig. 18.

DIAGNOSIS

Due to its large body size, *C. kantneri* n. sp. can be compared only with *C. vietnamica* and *C. laosensis*. Both species differ in very long aedeagus which is relatively short in *C. kantneri* n. sp. (Figs 6, 10-11).

ETYMOLOGY

Dedicated to František KANTNER (České Budějovice, Czech Republic), an excellent specialist in Clytrinae, who kindly provided me the material of this new species.

Cneorella kimotoi n. sp.

Cneorella chapaensis: KIMOTO, 1989: 94.

TYPE MATERIAL

Holotype (male) and 2 paratypes (1 male, 1 female), labelled: "VIET NAM Fyan 900-1000 m. 11.VII-9.VIII.'61 [w, p] // N. R. Spencer Collector BISHOP [w, p]" (in BPBM); 1 paratype (male), labelled: "VIET NAM Blao (Balao) 500m 14-21.X.1960 [w, p] // C. M. Yoshimoto Collector [w, p] // m [w, p] // *Cneorella chapaensis* Medvedev & Dang [h] Det. S. Kimoto, 19 [p] 88 [w, h]" (in BPBM); 2 paratypes (1 male, 1 female), labelled: "VIET NAM Fyan 1200 m. 11.VII-9.VIII.'61 [w, p] // N. R. Spencer Collector BISHOP [w, p]" (in BPBM); 1 paratype (female), labelled: "VIET NAM Dalat, 1500 m. 26-27.IX.1960 [w, p] // C.M. Yoshimoto Collector [w, p]" (in BPBM); 1 paratype (female), labelled: "VIET NAM Dalat, 1500 m. 29.IV-4.V.1960 [w, p] // S. Quate Collector [w, p]" (in BPBM). The specimens of the newly described species are provided with one printed red label: "HOLOTYPUS [or PARATYPUS], *Cneorella kimotoi* n. sp., det. J. Bezděk 2005".

DESCRIPTION

Body relatively robust, oblong oval, widened towards the rear, convex, lustrous, glabrous. Body bright metallic green, abdomen yellow. Labrum black with metallic tint, mandibles black with reddish brown apices. Last six antennomeres dull.

Labrum transverse, anterior margin slightly rounded, semiopaque, covered with 6 punctures in transverse row, each bearing a long pale seta. Anterior part of head with very fine microsculpture, lustrous, covered with several long pale setae. Two shallow depressions for the reception of the first antennomere are situated in front of antennal insertions. Frontal tubercles large, trapezoidal, slightly elevated above vertex, separated from each other and posteriorly by deep furrow. Outer lateral margins of frontal tubercles very indistinctly impressed. Vertex sparsely

covered with very fine indistinct punctures, lustrous. Antennae filiform, 0.75 times as long as body; length ratio of antennomeres 1 to 11: 18-8-14-17-17-17-17-17-17-16-20.

Pronotum transverse, 2.10-2.20 times as broad as long, widest in the middle. Anterior margin widely shallowly concave, lateral margins rounded, posterior margin widely rounded. All margins distinctly bordered. Anterior angles sharp with apex distinctly bulged, posterior angles widely rounded, indicated. All angles with setigerous pores bearing long pale setae. Surface sparsely covered with fine small punctures, lustrous, moderately convex, even, glabrous.

Scutellum triangular, with rounded apex, covered with fine punctures, lustrous, glabrous.

Elytra 1.5 times as broad as the base of pronotum, widened posteriad, widest in the second third, with distinct transverse furrow behind well developed humeral calli. Elytral surface densely covered with deep coarse punctures (much finer on humeral calli). Epipleura distinct, gradually narrowed posteriad and disappeared before apex.

Macropterous.

Legs slender, densely covered with short pale hairs. Basimetatarsomere as long as the two following metatarsomeres combined. Claws appendiculate. Metasternum lustrous, sparsely covered with short pale hairs, nearly impunctate. Abdomen lustrous, sparsely covered with fine punctures and short pale hairs.

Sexual dimorphism: Male: The last visible sternite with two narrow incisions, median lobe with large groove. Female: The last visible sternit complete.

Body length 5.25-6.35 mm (holotype 5.25 mm).

The shape of aedeagus as in Fig. 13. Spermatheca as in Fig. 19.

DISTRIBUTION

South Vietnam.

DIAGNOSIS

C. kimotoi n. sp. is similar to *C. chapaensis* and *C. cynea*. All three species can be distinguished by the structure of aedeagus (Figs 1-2, 13).

ETYMOLOGY

Dedicated to Prof. Shinsaku KIMOTO (Japan), an excellent specialist in Chrysomelidae.

Cneorella medvedevi n. sp.

TYPE MATERIAL

Holotype (male), labelled: "2. Vietnam, Prov. Vinh-Phu, Tamdao, 800-1200 m, forest 12-22.IV.1986, leg. L. MEDVEDEV, S. GOLOVATCH et al. [w, p]" (in LMRM). The holotype of the newly described species is provided with one printed red label: "HOLOTYPUS, *Cneorella medvedevi* n. sp., det. J. Bezděk 2005".

DESCRIPTION

Oblong oval, moderately widened towards the rear, convex, lustrous, glabrous. The body surface metallic dark blue, abdomen yellow. Mouthparts dark brown to black. Last eight antennomeres black, dull.

Labrum transverse, anterior margin slightly rounded, lustrous, covered with 6 punctures in transverse row, each bearing a long pale seta. Head lustrous, impunctate. Anterior part of head covered with several long pale setae, the rest of head glabrous. Interantennal space as wide as antennal insertion. Two depressions for the reception of the first antennomere are situated in front of antennal insertions. Frontal tubercles large, trapezoidal, slightly elevated above vertex, separated from each other and posteriorly by deep furrow. Outer lateral margins of frontal tubercles very indistinctly impressed. Frons with small distinct shallow groove just behind frontal tubercles. Vertex with small distinct shallow groove in the middle. Antennae filiform, 0.90 times as long as body; length ratio of antennomeres 1 to 11: 15-8-9-19-19-20-21-21-20-17-21.

Pronotum transverse, 2.2 times as broad as long, widest in the first third. Anterior margin nearly straight, lateral margins rounded, posterior widely rounded towards the posterior corners. All margins distinctly bordered. Anterior angles distinctly bulged, posterior angles widely rounded, indicated. All angles with setigerous pores bearing long pale setae. Surface lustrous, covered with fine small punctures, moderately convex, even, glabrous.

Scutellum subtriangular, with apex widely rounded, covered with microsculpture, lustrous, glabrous.

Elytra 1.45 times as broad as the base of pronotum, widened posteriad, widest in the second third, with transverse furrow behind humeral calli. Elytral surface densely covered with small fine punctures. Humeral calli well developed and covered with fine punctures. Epipleura distinct, gradually narrowed posteriad and disappeared before apex.

Macropterous.

Legs slender, densely covered with short pale hairs. Basimetatarsomere 1.3 times as long as two following metatarsomeres combined. Claws appendiculate. Metasternum lustrous, covered with fine punctures and short pale hairs. Abdomen semiopaque, sparsely covered with fine punctures and short pale hairs. The last visible sternite with two narrow incisions, median lobe with large deep groove.

Female unknown.

Body length 5.10 mm.

The shape of aedeagus as in Fig. 14.

DIAGNOSIS

C. medvedevi n. sp. is similar to *C. zdenka* n. sp. and *C. cynea*. All three species can be distinguished by the structure of aedeagus (Figs 2, 14, 23). Moreover, the groove on the median lobe of the last sternite in *C. zdenka* n. sp. is only indistinct while it is deep in *C. medvedevi* n. sp.

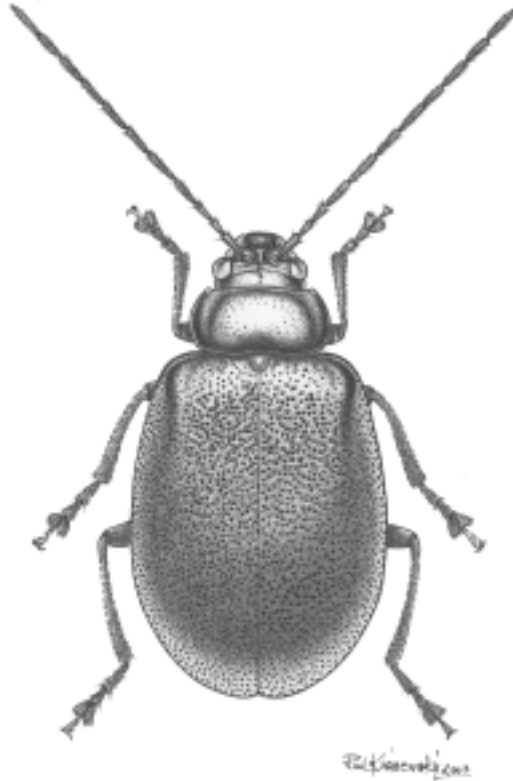
ETYMOLOGY

Dedicated to Dr. Lev N. MEDVEDEV (Moscow, Russia), a leading specialist in Chrysomelidae.

Cneorella phuphanensis n. sp.

TYPE EXAMINED

Holotype (male) and 19 paratypes (unsexed), labelled: "LAOS – NE; Hua Phan prov.; Ban Saluei; Phu Phan Mt.; 20°15'N 104°02'E; 1500-2000m; J. Bezděk leg.; 26.iv.-11.v.2001 [w, p]" (HT in NMPC, 7 PT in LMRM, 12 PT in JBCB); 41 paratypes (16 males, 25 females), labelled: "LAOS, Hua Phan prov., 2004 20°13'N 103°59'E, 6.-18.v., Ban Saluei, Phu Phan Mt. env. J. Bezděk leg., 1300-2000m [w, p]" (in JBCB, 2 PT in NMPC, 4 PT in NHMB, 1 PT in SNMC); 29 paratypes (unsexed), labelled: "NE LAOS, Hua Phan prov. Ban Saluei, 1300-2000 m 20°13'N; 103°59'E Phu Phan Mt. env. 2004 F. & L. Kantner leg. 6.-18.v. [w, p] // coll. F. Kantner Czech Republic [w, p]" (in JBCB, 12 PT in FKCC, 4 PT



15. Habitus of *C. phuphanensis* n. sp. (KRÁSENSKÝ orig.)

in JVCJ); 33 paratypes (unsexed), labelled: "Laos, Houaphanh pr. Phou Pan Mt., alt. 2000m, 30 km S of Xam-Neua, 103°59'E, 20°13'N, P. Kresl leg., 15.5.2004 [w, p]" (in JBCB, 5 PT in PKCJ); 11 paratypes (2 males, 9 females), labelled: "LAOS, Huaphan prov., Phou Pan Mt., alt. 2000m, 30 km S of Xam Neua, 103°59'E, 20°13'N, 2004 P. Kresl leg., 12.-17.v. [w, p]" (in JBCB). The specimens of the newly described species are provided with one printed red label: "HOLOTYPUS [or PARATYPUS], *Cneorella phuphanensis* n. sp., det. J. Bezděk 2005".

DESCRIPTION

Body robust, oblong oval, widened towards the rear, convex, semiopaque, glabrous (Fig. 15). The body surface metallic greenish grey (rarely bluish), abdomen yellow. Weakly sclerotized specimens brown with very intensive metallic tint. Last six antennomeres dull.

Labrum transverse, anterior margin straight, semiopaque, covered with 6 punctures in transverse row, each bearing a long pale seta. Head with very fine microsculpture, impunctate (only interantennal space with several small punctures), semiopaque. Anterior part of head covered with several long pale setae, the rest of head glabrous. Two deep depressions for the reception of the first antennomere are situated in front of antennal insertions. Frontal tubercles large, trapezoidal, slightly elevated above vertex, separated from each other and posteriorly by deep furrow. Outer lateral margins of frontal tubercles very indistinctly impressed. Frons with small distinct shallow groove. Antennae filiform, 0.70 times as long as body; length ratio of antennomeres 1 to 11: 20-9-13-20-19-19-20-19-20-18-22.

Pronotum transverse, 2.05-2.15 times as broad as long, widest in the middle. Anterior margin widely concave, lateral margins rounded, posterior margin almost straight, widely rounded towards the posterior corners. All margins distinctly bordered. Anterior angles sharp with apex distinctly bulged, posterior angles widely rounded, indicated. All angles with setigerous pores bearing long pale setae. Surface covered with very fine microsculpture and fine small punctures, semiopaque, moderately convex, even, glabrous.

Scutellum subtriangular, with apex widely rounded, densely covered with microsculpture, semiopaque, glabrous.

Elytra 1.3 times as broad as the base of pronotum, widened posteriad, widest in the second third, with indistinct transverse furrow behind humeral calli. Elytral surface densely covered with deep coarse punctures. Humeral calli well developed and covered with fine punctures. Epipleura distinct, gradually narrowed posteriad and disappeared before apex.

Macropterous.

Legs slender, densely covered with short pale hairs. Basimetatarsomere as long as two following metatarsomeres combined. Claws appendiculate. Underside with sparse fine punctures and sparse short pale hairs.

Sexual dimorphism: Male: The last visible sternite with two narrow incisions, median lobe with large shallow groove. Female: The last visible sternite complete.

Body length 6.30-7.25 mm (holotype 6.75 mm).

The shape of aedeagus as in Fig. 22. Spermatheca as in Fig. 20.

DISTRIBUTION

North Laos (Hua Phan province).

DIAGNOSIS

C. phuphanensis n. sp. can be distinguished from its congeners by the very deep and coarse elytral punctures. By the structure of aedeagus *C. phuphanensis* n. sp. is closely related to *C. cyanea* (Figs 2, 22). Both species differ in the structure of elytral punctures and in the body coloration (green in *C. phuphanensis* n. sp. and blue in *C. cyanea*).

ETYMOLOGY

Named after Phu Phan Mt. (North Laos, Hua Phan province) where the type series was collected.

Collection circumstances. Most of the specimens were swept from the shrubby vegetation. Several specimens were also collected at light close to the shrubs.

Cneorella zdenka n. sp.

Cneorella cyanea: KIMOTO, 1989: 94.

TYPE MATERIAL

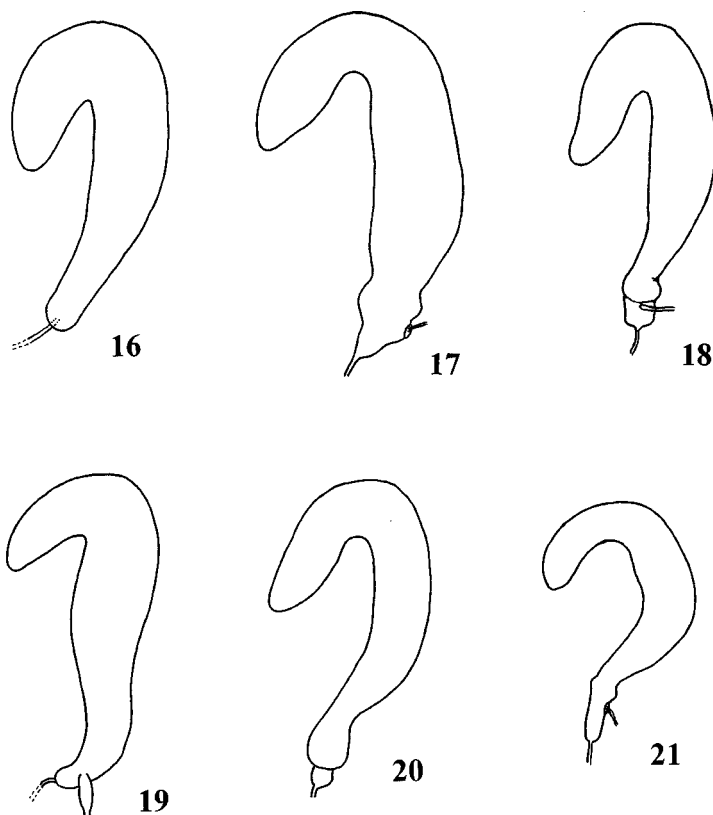
Holotype (male), and 5 paratypes (3 males, 2 females), labelled: "Laos C., Bolikhamsai pr., Ban Nape env., alt. 400 m, 7.-16.v.2004, 18°20'N, 105°08'E, E. Jendek & O. Šauša leg. [w, p]" (in HT in NMPC, 1 PT in NHMB, 3 PT in JBCB, 1 PT in FKCC); 1 paratype (male), labelled: "LAOS centr. Kham Mouan pr Nakai vill. env., 70 km NNE Muang Khammouan, 560 m leg. M. Štrba 7.-25.v.2002 [w, p]" (in FKCC); 3 paratypes (2 males, 1 female), labelled: "LAOS: 800 m. Ban-van-eue SE of Phou-kow-kuei, 14 IV.1965 [w, p] // 4826 [w, h] // J. L. Gressitt Collector BISHOP MUSEUM [w, p]" (in BPBM); 1 paratype (male), labelled: "LAOS: 800 m. Ban-van-eue SE of Phou-kow-kuei, 14 IV.1965 [w, p] // J. L. Gressitt Collector BISHOP MUSEUM [w, p] // 4826 [w, h] // *Cneorella cyanea* Medvedev & Dang [h] Det. S. Kimoto, 19 [p] 89 [w, h]" (in BPBM). The holotype of the newly described species is provided with one printed red label: "HOLOTYPUS, *Cneorella zdenka* n. sp., det. J. Bezděk 2005".

DESCRIPTION

Oblong oval, moderately widened towards the rear, convex, lustrous, glabrous. The body surface metallic dark blue, abdomen yellow. Last two antennomeres paler.

Labrum transverse, anterior margin straight, lustrous, covered with 6 punctures in transverse row, each bearing a long pale seta. Head lustrous, impunctate. Anterior part of head covered with several long pale setae, the rest of head glabrous. Interantennal space as wide as antennal insertion. Two depressions for the reception of the first antennomere are situated in front of antennal insertions. Frontal tubercles trapezoidal, slightly elevated above vertex, separated from each other and posteriorly by deep furrow. Outer lateral margins of frontal tubercles indistinctly impressed. Frons with small distinct shallow groove just behind frontal tubercles. Vertex with small nearly indistinct shallow groove in the middle. Antennae filiform, relatively short, 0.60 times as long as body; length ratio of antennomeres 1 to 11: 16-8-10-14-14-14-15-15-15-13-18.

Pronotum transverse, twice as broad as long, widest in the first third, convex, even, glabrous. Anterior margin straight, lateral margins rounded, posterior widely rounded towards the posterior corners. All margins distinctly bordered. Anterior

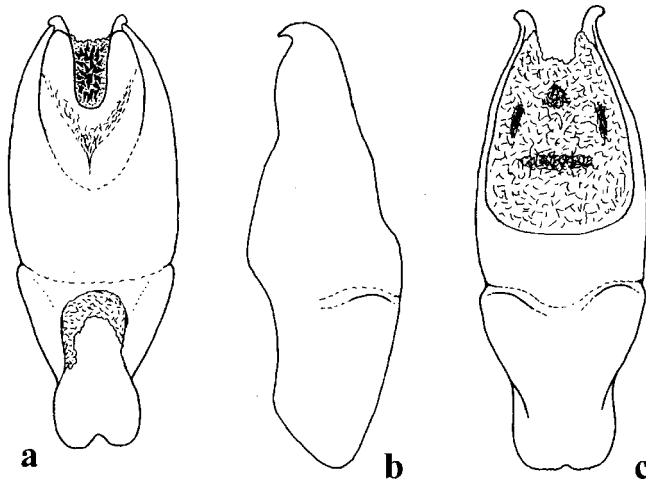


16-21. Spermatheca: 16 – *Cneorella cyanea*, 17 – *C. laosensis*, 18 – *C. kantneri* n. sp., 19 – *C. kimotoi* n. sp., 20 – *C. phuphanensis* n. sp., 21 – *C. zdenka* n. sp. Scale 0.5 mm

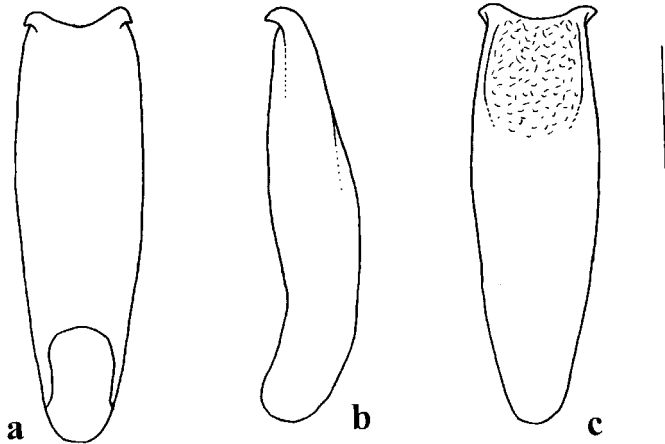
angles sharp, posterior angles widely rounded, indicated. All angles with setigerous pores bearing long pale seta. Surface lustrous, covered with small punctures.

Scutellum subtriangular, with apex rounded, impunctate, lustrous, glabrous.

Elytra 1.30 times as broad as the base of pronotum, widened posteriad, widest in the second third, with shallow but distinct transverse furrow behind well developed humeral calli. Elytral surface densely covered with small punctures, finer on humeral calli. Epipleura distinct, gradually narrowed posteriad and disappeared before apex.



22



23

22-23. Aedeagus (a - ventral view, b - lateral view, c - dorsal view): 22 - *Cneorella phuphanensis* n. sp., 23 - *C. zdenka* n. sp. Scale 1 mm

Macropterous.

Legs slender, densely covered with short pale hairs. Basimetatarsomere 1.2 times as long as two following metatarsomeres combined. Claws appendiculate. Metasternum lustrous, covered with short pale hairs. Abdomen lustrous, sparsely covered with fine punctures and short pale hairs.

Sexual dimorphism: Male: The last visible sternite with two narrow incisions, median lobe with indistinct shallow groove. Female: The last visible sternite complete.

Body length 5.30-6.55 mm (holotype 6.35 mm).

The shape of aedeagus as in Fig. 23. Spermatheca as in Fig. 21.

DIAGNOSIS

Externally, *C. zdenka* n. sp. is very similar to *C. cynea* and *C. medvedevi* n. sp. but both species differ in the structure of aedeagus (Figs 2, 14, 23) and in the deep groove on the median lobe of the last sternite (only indistinct in *C. zdenka* n. sp.).

ETYMOLOGY

Dedicated to my mother Zdenka BEZDĚKOVÁ.

KEY TO SPECIES

1. Head, pronotum, basal half of elytra, tibiae and tarsi black; apical half of elytra, ventral side of the body, coxae and femora yellowish orange. Body length 5.60 mm. Aedeagus as in Fig. 3. Vietnam (?) *C. bicoloripennis* LOPATIN, 2003
- Body metallic, abdomen yellow 2.
2. Legs yellow with basal 3/4 of femora metallic green. Pronotum 1.75-1.90 times as wide as long. Body length 4.10-4.60 mm. Aedeagus as in Fig. 4. Laos (?) *C. flavipes* MEDVEDEV, 2000
- Legs black with metallic tint. Pronotum 2.00-2.25 times as wide as long 3.
3. Elytra without or with very indistinct subbasal transverse furrow 4.
- Elytra with distinct subbasal transverse furrow 6.
4. Interstices of elytral punctures shagreened. Generally greenish blue. Median lobe of last sternite in male with only indistinct groove. Body length 4.80-5.20 mm. Aedeagus as in Fig. 9. China (Hupeh), Thailand *C. suisapana* (GRESSITT et KIMOTO, 1963)
- Interstices of elytral punctures smooth 5.
5. Elytra covered with fine punctures. Generally blue. Median lobe of last sternite in male with indistinct groove. Body length 4.30-5.40 mm. Aedeagus not bifurcated (Fig. 5). Hainan, Taiwan, S. China (?) *C. spuria* (GRESSITT et KIMOTO, 1963)
- Elytra covered with deep and coarse punctures. Generally green. Median lobe of last sternite in male with deep groove. Body length 6.30-7.25 mm. Aedeagus bifurcated (Fig. 22). North Laos *C. phuphanensis* n. sp.

6. Larger species (7.00-8.40 mm) 11.
- Smaller species (5.15-7.00 mm) 7.
7. Aedeagus ventrally with two small subapical teeth and with large deep furrow constricted in the middle (Figs 1, 14) 8.
- Aedeagus with well developed lateroapical processes, ventrally without two small subapical teeth and without deep furrow (Figs 2, 13, 23) 9.
8. Generally blue. Body more slender and less convex. Apical angle of elytra rounded. Body length 5.15 mm. Aedeagus as in Fig. 14. Vietnam *C. medvedevi* n. sp.
- Generally greenish blue. Body robust and strongly convex. Apical angle of elytra nearly rectangular. Body length 6.20-7.00 mm. Aedeagus as in Fig. 1. Vietnam *C. chapaensis* MEDVEDEV, 1981
9. Generally bright green. Elytra covered with coarser punctures. Body length 6.00-6.35 mm. Aedeagus as in Fig. 13. Vietnam *C. kimotoi* n. sp.
- Generally blue. Elytra covered with very fine punctures 10.
10. Median lobe on male last sternite with distinct groove. Body length 5.40-7.00 mm. Aedeagus with deeply incised apex in ventral view (Fig. 2). Vietnam *C. cyanea* MEDVEDEV, 1981
- Median lobe on male last sternite with indistinct groove. Body length 5.30-6.55 mm. Aedeagus with shallowly incised apex in ventral view (Fig. 23). Laos *C. zdenka* n. sp.
11. Generally blue. Groove on median lobe of last sternite in male with triangular process (Fig. 12). Apical half of antennae black. Body length 7.80 mm. Aedeagus very long (Fig. 11). Vietnam *C. vietnamica* MEDVEDEV, 1981
- Groove on median lobe of last sternite in male without triangular process. Apical half of antennae paler 12.
12. Aedeagus very long (Fig. 6). Body length 7.00-8.40 mm. Laos *C. laosensis* KIMOTO, 1989
- Aedeagus short (Fig. 10). Body length 7.35-8.00 mm. Laos *C. kantneri* n. sp.

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REFERENCES

- CHŪJŌ, M., 1965. Chrysomelid-beetles of Formosa (I). Spec. Bull. Lepidopter. Soc. Japan, **1**: 88-104.
- CHŪJŌ, M. & CHŪJŌ, M., 1997. A list of the coleopterous type specimens from CHŪJŌ-CHŪJŌ collection donated to Kyushu University, I (Insecta). Esakia, **37**: 39-56.
- GRESSITT, J. L. & KIMOTO, S., 1963. The Chrysomelidae (Coleopt.) of China and Korea. Part 2. Pac. Ins. Monogr., **1B**: 301-1026.
- KIMOTO, S., 1969. Notes to the Chrysomelidae from Taiwan II. Esakia, **7**: 1-68.
- , 1989. Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam. IV. Galerucinae. Esakia, **27**: 1-241.
- KIMOTO, S. & CHU, Y.-I., 1996. Systematic catalog of Chrysomelidae of Taiwan (Insecta: Coleoptera). Bull. Inst. Comp. Stud. Int. Cult. Soc., **16**: 1-152.
- KIMOTO, S. & TAKIZAWA, H., 1997. Leaf beetles (Chrysomelidae) of Taiwan. Tokai University Press, Tokyo, i-xvii + 581 pp.
- LOPATIN, I. K., 2003. New species of leaf-beetles from South-East Asia (Coleoptera, Chrysomelidae). Euroasian Ent. J., **2**: 301-304.
- MEDVEDEV, L. N., 2000. Chrysomelidae (Coleoptera) of Laos from the collection of the Hungarian Natural History Museum. Ann. Hist.-natur. Mus. Nat. Hung., **92**: 161-182.
- MEDVEDEV, L. N. & DANG, T. D., 1981. New genera and species of leaf-beetles of the subfamily Galerucinae (Coleoptera, Chrysomelidae) from Vietnam. Entomol. Obozr., **50**: 629-635.
- WILCOX, J. A., 1973. Chrysomelidae: Galerucinae Luperini: Luperina. In: WILCOX J. A. (ed.): Coleopterorum Catalogus Supplementa. Pars 78(3), Second edition. W. Junk, 's-Gravenhage, 433-664.